

**Notice of Allowability**

Application No.

10/088,996

Examiner

Rip A. Lee

Applicant(s)

ARIKAWA ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to March 31, 2004.
2. ☒ The allowed claim(s) is/are 4-6.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

### DETAILED ACTION

This office action follows a request for continued examination (RCE) under 37 § C.F.R. 1.114, filed on March 31, 2004. Claims 4-6 have been amended.

#### *Allowable Subject Matter*

The following is an examiner's statement of reasons for allowance: Claims 4-6 are allowed over the closest reference, U.S. Patent No. 6,448,321 to Tokita.

The present invention is drawn to an aqueous dispersion comprising a non-volatile film forming component dispersed in water. The non-volatile component contains 100 parts (by weight) of a styrene/conjugated diene block copolymer or its hydrogenation product, 0.5-20 pw of a carboxylic acid modified thermoplastic polymer or a copolymer of styrene and unsaturated acid compound, and 0.1-30 pw of a nitrogen compound  $R^1R^2NH$  in which  $R^1$  is  $(CH_2CH_2O)_m-H$  and  $R^2$  is  $(CH_2CH_2O)_n-H$ , alkyl, aryl, or hydrogen.

A second aspect of the invention is drawn to an aqueous dispersion comprising a non-volatile film forming component dispersed in water. The non-volatile component consists of 100 pw of a styrene/conjugated diene block copolymer or its hydrogenation product and 0.5-20 pw of a carboxylic acid modified thermoplastic polymer or a copolymer of styrene and unsaturated acid compound.

A third embodiment of the invention is drawn to an aqueous dispersion comprising a non-volatile film forming component dispersed in water. The non-volatile component consists of 100 pw of a styrene/conjugated diene block copolymer or its hydrogenation product and 0.1-30 pw of a nitrogen compound  $R^1R^2NH$  in which  $R^1$  is  $(CH_2CH_2O)_m-H$  and  $R^2$  is  $(CH_2CH_2O)_n-H$ , alkyl, aryl, or hydrogen.

Tokita teaches an aqueous dispersion comprising a thermoplastic copolymer such as styrene block copolymers and styrene-butadiene copolymer and 3-25 wt % of a basic substance such as ethanolamine incorporated into the composition to partially neutralize or saponify a fatty acid ester component. An example of the basic compound is ethanolamine. The reference does not teach or suggest use of 0.5-20 pw of a carboxylic acid modified thermoplastic polymer or a copolymer of styrene and unsaturated acid compound. Furthermore, the amine component is used to neutralize an acid ester component and therefore would not retain its identity in the final composition. For these reasons, all aspects of the present invention are not anticipated or made obvious in view of the teachings of Tokita.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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June 14, 2004



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